



Arizona Department of Transportation Stormwater Requirements for External Parties

1.0 To Whom Does This Guidance Apply?

This document provides guidance on Arizona Department of Transportation's (ADOT's) stormwater requirements applicable to entities external to ADOT (external parties-see Glossary definition #3 at the end of the document). For example, external parties may be permittees seeking encroachment permits (see Glossary definition #2) to conduct work within the ADOT roadway right-of-way (R/W), they may be seeking to obtain authorization to work within ADOT facility boundaries (within ADOT's jurisdiction), or they may be external parties entering into a Joint Project Agreement (JPA) or Inter-governmental Agreement (IGA) with ADOT. This guidance does not apply to construction contracts administered through the ADOT bidding process. For ease of use, this document has been formatted in terms of Frequently Asked Questions.

Note: A glossary containing definitions of terms used in this document, a list of applicable reference documents, and a list of contact phone numbers may be found at the end of the guidance document.

2.0 What is the Purpose of this Document?

The operator of a construction site is responsible for managing the discharges of stormwater related to construction activity. Stormwater discharges associated with construction activities must obtain coverage under a state or federal permit. Stormwater Pollution Prevention Plans (SWPPPs) are detailed plans outlining how sediment and erosion controls and other best management practices (BMPs) will be implemented on a construction site. The external party is responsible for development of a SWPPP for any disturbance of one acre or more per the requirements of the Arizona Department of Environmental Quality's (ADEQ) Arizona Pollutant Discharge Elimination System (AZPDES) (see ADEQ web site: <http://www.azdeq.gov/function/permits/general.html#surface>), Construction General Permit (AZCGP), or the Environmental Protection Agency's (EPA) National Pollutant Discharge Elimination System (NPDES) Federal Construction General Permit (FCGP) on Indian lands (see EPA web site: http://cfpub.epa.gov/npdes/home.cfm?program_id=6) If you have any questions, contact ADEQ at (602) 771-2300 or, toll free, at (800) 234-5677, or EPA at (866) 352-7755. ADOT has the ultimate responsibility to ensure compliance with its AZPDES permit, but since other parties are performing work in ADOT's R/W or ADOT's facilities, ADOT is taking steps to ensure these parties comply with the applicable regulation, as well.

2.1 Starting the Process-External Party Responsibilities

Prior to the start of the work, a SWPPP must be prepared and a Notice of Intent (NOI) must be filed with the appropriate agency. For stormwater permitting on non-Indian Lands, send the NOI to the Stormwater Coordinator, Arizona Department of Environmental Quality, 1110 W. Washington St., Phoenix, Arizona 85007. For stormwater permitting on Indian Lands, send the NOI to Stormwater Notice Processing Center, Mail Code 4203M, U.S. EPA, 1200 Pennsylvania Avenue, NW Washington, DC 20460. (Note: No Tribes within Arizona currently administer the Clean Water Act stormwater program. However, tribes may obtain authorization in the future. In that event, NOIs' will be filed with the authorized tribe). This form must be complete and accurate and signed by the appropriate signatory in order for you to obtain coverage. The form

also serves as a promise by the external party that there will be compliance with the AZCGP or FCGP permit conditions.

Although SWPPPs must be prepared for all construction projects, they only need to be submitted to ADEQ if your site is located within ¼ mile of a unique, impaired, or not attaining water (see Glossary definition #5, #9, and #12), the SWPPP must be submitted to ADEQ with your NOI. In all other cases, do not submit the SWPPP to ADEQ or EPA. If the SWPPP is not required to be submitted to ADEQ, the external party must wait at least 2 business days before discharging. If the SWPPP had to be submitted to ADEQ for review, the external party must wait to receive notice of NOI and SWPPP approval from ADEQ before beginning construction. ADEQ has up to 32 business days for review of the SWPPP. If ADEQ or EPA does not contact the external party within the waiting period, the external party may assume permit coverage has been granted. Once permit coverage has been obtained, the external party must implement the SWPPP according to the conditions of the appropriate agency general permit (AZCGP or FCGP). A copy of the SWPPP must be available for review at the construction site at all times during construction of the project. A copy of the appropriate agency general permit must also be available for review at the construction site. All terms and conditions of the general permits are contained in ADEQ's *Arizona Pollutant Discharge Elimination System General Permit for Discharge from Construction Activities to Waters of the United States*, February 2003 or EPA's *Final National Pollutant Discharge Elimination System General Permit for Discharge from Construction Activities*, July 2003 (see References for online address).

2.2 ADOT Responsibilities

ADOT must comply with the AZPDES stormwater requirements to reduce the discharge of pollutants associated with the stormwater drainage systems that serve highways and transportation-related properties, facilities, and activities. To comply with its obligations, ADOT has developed and is implementing a Statewide Stormwater Management Plan (SSWMP) and accompanying guidance manuals, which may be accessed at: http://www.azdot.gov/adot_and/storm_water/stormwater.asp. This guidance is not a substitute for, nor is it intended to supplant or vary from the federal or state regulatory requirements. In the event any advice or information contained in this guidance differs or deviates from the federal or state stormwater requirements, those requirements shall prevail. This guidance is intended for educational or instructive purposes.

These documents provide the external party with general guidance and directions as well as detailed reference and design information on how to comply with ADOT's SSWMP. It is expected that the external party and/or the external party's engineer will be knowledgeable in the use of the referenced items. These guidelines are intended to be followed to the fullest extent possible, with any deviations requiring prior written approval of ADOT.

3.0 What is Required of External Parties Proposing Construction Activities within ADOT's Jurisdiction?

External parties proposing projects located within ADOT's jurisdiction that disturb one or more acres, OR smaller sites that are part of a larger plan of development or sale (see Glossary definition #6), are required to comply with the terms and conditions of the AZCGP, develop and implement a SWPPP, and file an NOI (see previous section). ADOT Permits and ADOT R/W **may** require a copy of the NOI and SWPPP be submitted in the ADOT permit application package. BMPs selected for use within the SWPPP must be consistent with ADOT BMPs

contained in the ADOT *Erosion and Pollution Control Manual* (available on the ADOT web site: http://www.azdot.gov/adot_and/storm_water/Erosion_Pollution_Control_Manual.asp and through ADOT Engineering Records) or approved by ADOT. The ADOT Roadside Development Section may be contacted for any questions on the manual requirements (see Contact list). The ADOT *Erosion and Pollution Control Manual* also contains a step-by-step process for preparing and implementing the SWPPP. The external party should particularly note the following specific ADOT requirements:

- Sediment and erosion control BMPs**

ADOT has developed guidance on sediment and erosion control BMPs for use within ADOT's jurisdiction in the ADOT *Erosion and Pollution Control Manual*, February 2005, available at: http://www.azdot.gov/adot_and/storm_water/Erosion_Pollution_Control_Manual.asp. The external party should select those BMPs applicable to its project. Please note that use of BMPs consistent with adopted ADOT BMPs for erosion and sediment control are mandatory on every construction project, regardless of the size of the project and whether or not a SWPPP is prepared in accordance with Standard Specification 104.09. Criteria for erosion and sediment control materials and installation of materials may be found in the ADOT Stored Specification 810ERCON: Erosion and Pollution Control.

- Revegetation**

Temporary (erosion control) and permanent revegetation is required on all projects within ADOT's jurisdiction. Tillage, seeding, and mulching requirements may be included in the permit conditions. Seed mixtures may also be specified. Revegetation must be conducted in accordance with the criteria established in ADOT Stored Specification 805SEED: Seeding.

- Local Jurisdictions**

Discharges from the stormwater systems of certain larger municipalities and from the ADOT drainage system conveyance system within those municipalities are subject to Municipal Separate Storm Sewer System (MS4) permits (see Glossary definition #7). External parties are directed to the ADEQ web site at: www.azdeq.gov/environ/water/permits/stormwater.html#ms4 to determine if the project they are undertaking is located within an Arizona MS4. Many MS4s have individual web sites with information on stormwater management. Some links are provided on the ADEQ web site. If the project is located within an Arizona MS4, there may be additional stormwater control measures applicable to the project. External parties are also directed to check with all local jurisdictions for additional stormwater control requirements, such as grading control plans, prior to project implementation.

- Final Stabilization**

After the construction project is complete and the project's disturbed area is stabilized to at least 70 percent of natural background levels (see Appendix A.6 of the ADOT *Erosion and Pollution Control Manual*), the external party must submit a Notice of Termination (NOT) to the appropriate agency to end participation in the stormwater program. If the disturbed area is not stabilized to at least 70 percent of natural background vegetative coverage levels within six (6) months of project completion, the disturbed area shall be evaluated for reseeding with the seed mix specified in the ADOT permit in accordance with ADOT specification 805: Seeding. During the establishment period, routine

inspections shall be conducted by the external party or its contractor and BMPs shall be properly maintained. Permit work will not be accepted and closed out by ADOT Permits until the 70 percent level is achieved and the temporary BMPs removed.

4.0 Are There Additional ADOT Requirements for MS4s?

Yes. ADOT was issued an individual MS4 permit for activities located within the Phoenix and Tucson MS4s in 1999. Any construction projects located in these MS4s are subject to ADOT NPDES Permit No. AZS000018. External parties working within the Phoenix and Tucson MS4s shall obtain a copy of ADOT Permit No. AZS000018 (located in Appendix I of the ADOT SSWMP) at: http://www.dot.state.az.us/adot_and/storm_water/PDF/SSWMP_020105.pdf, for reference prior to completion of the project SWPPP. This permit requires 24-hour notification to ADEQ of any non-stormwater discharge into an MS4 conveyance system located in the Phoenix and Tucson metropolitan areas. There may also be additional local requirements for other smaller MS4s. Many of these smaller MS4s are in the process of adopting new stormwater management ordinances. A list of the Arizona MS4s can be found at: www.azdeq.gov/environ/water/permits/stormwater.html#ms4. External parties working within any of the Arizona MS4s should contact local jurisdictions to determine any additional requirements.

5.0 What Construction Site Discharges are Allowed within the ADOT Jurisdiction?

Allowable non-stormwater discharges (see Glossary definition #8) consist of activities such as application of dust control water, potable water line flushing, and soil compaction water (see Part I.C of the AZCGP for a list of allowable non-storm discharges). Appropriate BMPs must be implemented for all allowable non-stormwater discharges. All allowable discharges of combined non-stormwater and stormwater flows are subject to compliance with the Arizona water quality standards unless located on Indian lands.

All other non-stormwater discharges are prohibited on construction projects or properties within ADOT's jurisdiction. Prohibited discharges include (among others) uncontrolled disposal of concrete washouts and drilling fluids. External parties shall place concrete washout waste in a temporary containment facility as specified in BMP No. 5.7.8, Concrete Waste Management of the ADOT *Erosion and Pollution Control Manual*. Drilling fluids and waste shall not be allowed to enter storm drains or watercourses and shall be handled in accordance with BMP No. 5.7.9, Liquid Waste Management of the ADOT *Erosion and Pollution Control Manual*. No wastes may be buried within the ADOT jurisdiction. Other BMPs may apply to other types of wastes. The external party is directed to the ADOT *Erosion and Pollution Control Manual* for guidance.

6.0 When Must the External Party Obtain Coverage Under ADEQ's De Minimus Discharge Permit?

De Minimus discharges (see Glossary definition #1) that are discharged directly into waters of the US or an MS4 conveyance system from actions such as water well development and dewatering operations require **separate coverage** under an ADEQ De Minimus General Permit (See References). Dewatering operations must also comply with BMP No. 5.6.2, Dewatering Operations of the ADOT *Erosion and Pollution Control Manual*. Approval of a BMP plan, submittal of a NOI, and discharge monitoring reporting may also be required by the De Minimus General Permit. If the external party intends to apply for coverage under the De Minimus General Permit, a copy of the NOI must be included in the ADOT Permit or R/W application

package. Instructions for filing of the NOI can be obtained at the following website: <http://www.azdeq.gov/environ/water/permits/gen.html#demi>.

7.0 What Should the External Party Do if a Spill Occurs?

External parties must establish spill control response protocols. Spill control materials shall be located in close proximity to any off-site discharge points. Spills shall not be allowed to enter into any stormwater conveyance system (ADOT or local jurisdiction) and shall be cleaned up as soon as possible. Spilled material may not be buried on site. If the external party's project is located within an MS4, the external party is responsible to immediately notify the ADOT District Office (see District contact list in permit), other local jurisdiction(s), and ADOT Central Maintenance of any unauthorized spills into the stormwater conveyance system. If Central Maintenance cannot be reached, the ADOT Traffic Operations Center should be contacted (see Contacts).

8.0 What is Required if An External Party Wishes to Make a Connection to or Alterations of an ADOT Stormwater Conveyance System?

Examples of ADOT stormwater conveyances include roadside ditches, culverts, sumps, open channels, dry wells, detention basins, etc. If any project proposed by an external party, including those under one acre in surface disturbance, involves alteration of or connection to an ADOT stormwater conveyance, it is the responsibility of the external party to comply with ADOT drainage guidance. The external party must submit an engineering Drainage Report, prepared and sealed by an Arizona Registered Professional Engineer, for review and approval by the ADOT Drainage Section. Permittees should make this submittal through the District Permits office. Drainage Report requirements are contained in Appendix A. In general, Permittees proposing connections to the ADOT stormwater conveyance system must consider the following:

- Existing drainage patterns within ADOT jurisdiction shall be perpetuated to the maximum extent possible. Flows must not be obstructed from leaving ADOT jurisdiction. Design of new facilities within ADOT's jurisdiction must consider potential impacts of future development within the contributing basin.
- Drainage design of new facilities within ADOT R/W shall meet current ADOT drainage standards, criteria, and guidelines. Requirements may be referenced in the current *Highway Drainage Design Manual-Hydrology*, Report No. 35-234, (available through Engineering Records) *Highway Drainage Design Manual-Hydraulics*, and the *ADOT Roadway Design Guidelines*, (available on line at www.azdot.gov). Local government methodology may be used for the hydrologic analysis of project areas located outside ADOT's jurisdiction that are proposed to discharge into ADOT drainage facilities. However, if ADOT determines that the methodology is inadequate to protect ADOT facilities, the use of ADOT hydrologic methodology may be required.
- The connection/discharge must be in accordance with all relevant local, state and federal water quality laws plus meet both water quantity and water quality requirements set by ADOT.
- The connection/discharge must, at a minimum, meet local detention/retention requirements. Local detention/retention requirements will not be waived by ADOT.

- For water quality and environmental protection reasons, the “first flush” from the contributing external drainage area discharging into an ADOT storm drainage facility shall be retained or treated on-site by the external party at a minimum (see Glossary definition #4). Local government water quality requirements may be used for project areas outside of ADOT jurisdiction if they are similarly protective of stormwater quality.
- ADOT property shall not be used by an external party as a means of averting or displacing the requirements placed upon them by federal, state, or local regulations that may be applicable as to storage, detention or retention. A development shall not use ADOT property as a “green belt” which contributes to the percent of open and public use lands.
- The external party shall be responsible for the proper operation and maintenance of any drainage connection, detention/retention, or treatment facilities. Failure to do so will constitute a violation and may result in revocation of the encroachment permit or additional permit requirements such as an operation and maintenance plan and periodic discharge monitoring. Operation and maintenance requirements may be specified in the encroachment permit.
- ADOT may include any encroachment permit condition that ADOT considers necessary to meet stormwater permit requirements, Arizona surface water quality standards, Total Maximum Daily Loads, or any other applicable federal, state, or local government water quality laws and permit requirements.

9.0 What is Required to Work Within ADOT Facilities?

This guidance also applies to external parties making application to ADOT R/W to work within property boundaries of ADOT maintenance yards or other facilities. For requirements that apply specifically to these facilities, external parties are directed to the *ADOT Maintenance and Facilities Best Management Practices Manual* for guidance on SWPPPs and BMPs. External parties seeking authorization to work within property boundaries of ADOT maintenance facilities located within MS4s should consult a copy of the facility’s SWPPP to ensure that all facility-specific BMPs have been addressed. The Regional Office Directors of ADOT Physical Plant Facilities may be contacted for a copy of the applicable SWPPP (see Contacts). Those ADOT facilities qualifying as industrial facilities regulated under the US EPA Multi-Sector General Permit may have additional requirements. The ADEQ web site contains additional information on the multi-sector general permit requirements (See <http://www.azdeq.gov/environ/water/permits/stormwater.html#multi>).

10.0 What is Required of an IGA or JPA External Party Participant?

Although general responsibilities for management of stormwater compliance requirements will be contained within the IGA or JPA, external parties performing construction activities pursuant to the IGA or JPA must meet or exceed the requirements of the AZCGP and ADOT Statewide Stormwater Management Plan for construction projects. These external parties must also provide a Drainage Report (Appendix A) for connections to or alterations of the ADOT conveyance system. These requirements may be accommodated within the context of a blanket encroachment permit, reviewable on an annual basis.

11.0 How Will the ADOT Stormwater Management Plan Be Enforced?

External party enforcement actions on stormwater issues are rare. ADOT encourages external party consultation with District staff to develop mutually satisfactory solutions to potential problems or to resolve emergency situations. If resolution cannot be obtained, ADOT has complete and exclusive operational control and jurisdiction over the use of state highways, including the highway R/W (Arizona Revised Statutes § 28-7045). This legal authority includes regulating adverse drainage impacts and environmental impacts within ADOT's jurisdiction, and abutting property affecting state property.

If a permittee fails to comply with ADOT stormwater requirements, ADOT is authorized under state law and regulations (Arizona Administrative Code R17-3-508) to take the following actions:

- Request the Department of Public Safety to immediately shut down and remove the project.
- Take Court action such as injunctive relief to stop any further work on the project.
- Shut down and removal of the project by ADOT personnel
- Take Court action to recover ADOT's costs for all work performed to remove and fix the project.
- Revoke the ADOT encroachment permit or lease.
- Suspend work on the project until all criteria are met.

Also, many types of drainage or runoff damages constitute a petty offense for each day of violation and are punishable as a criminal offense.

Glossary

1. *De Minimus Discharges* contain relatively low levels of pollutants, are of limited flow and/or frequency, and shall not last for more than 30 days unless approved in advance by ADEQ.
2. *Encroachment Permit* means a written approval granted by the Department for construction of a fixed or temporary improvement within a state highway right-of-way, or for any activity requiring the temporary use of or intrusion upon a state highway right-of-way. These permits will legally bind the party seeking them to comply with all applicable federal, state, and local environmental laws including stormwater requirements and regulations while performing construction activities. These permits will further contain all conditions the external party must meet in undertaking the construction activity.
3. *External Party* refers to any third party other than ADOT seeking to undertake projects in rights-of-way and facilities. External parties may consist of utilities, developers, property owners, local jurisdictions, or participants in Joint Project Agreements or Intergovernmental Agreements.
4. *First Flush* means the minimum level of control at which stormwater pollution prevention practices must be put in place. This minimum standard is “first flush”, and consists of retaining or treating (as approved or reviewed by ADOT) the first 0.5 inches of direct runoff from a storm event. The first flush requirement can be addressed by: (1) retaining the required minimum first flush volume, (2) treating the first flush discharge, or (3) utilizing a combination of both approaches.
 - The minimum First Flush volume, V_{FF} , is calculated as $V_{FF} = C(P/12)A$ where: V_{FF} = minimum First Flush volume in acre-feet, C = runoff coefficient (set = 1), P = first 0.5 inches of direct runoff, and A = area of project site, in acres.
 - The minimum First Flush treatment discharge, Q_{FF} , is calculated as $Q_{FF} = CIA$ where: Q_{FF} = minimum First Flush discharge in cubic feet per second, C = runoff coefficient (set = 1), I = 0.5 inches/hour rainfall excess intensity (0.5 inches of direct runoff in 1st hour), and A = area of project site, in acres.
5. *Impaired Water* means a navigable water for which credible scientific data exists indicating that for some uses and/or parameters, the water body or segment is not currently meeting Arizona Surface Water Quality Standards (WQS) for pollutants. Impaired waters may also be threatened and likely to not meet WQS in the future. Impaired waters are designated by the states on a special list called the “303(d) list,” named for a section of the Clean Water Act.
6. *Larger common plan of development or sale* means a contiguous area where multiple separate distinct construction activities may be taking place at different times on different schedules under one plan. If the land is parceled off or sold, and construction occurs on plots that are less than one acre by separate, independent builders, this activity still would be subject to stormwater permitting requirements if the smaller plots were included on the original site plan (US EPA 2004).
7. *Municipal Separate Storm Sewer System (MS4)* is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains) owned by a state, city, town, or other public body, that is

designed or used for collecting or conveying stormwater, that is not a combined sewer, and that is not part of a publicly owned treatment works.

8. *Non-Stormwater Discharge* is any discharge to a storm drain system or receiving water that is not composed entirely of stormwater.

9. *Not Attaining* is a surface water for which: (1) A Total Maximum Daily Load (TMDL-see Glossary definition #10) has been completed and approved by EPA, but the water standards are not yet attained, (2) Other pollution control requirements are expected to result in the attainment of water quality standards by the next regularly scheduled listing cycle, or (3) The impairment is not related to pollutant loading, but is caused by pollution (e.g., hydromodification).

10. *Permittee* means a person or entity to whom the Department issues an encroachment permit, and who is responsible for meeting the obligations, responsibilities, and specifications stated in the encroachment permit.

11. *Total Maximum Daily Load* is a calculation of the maximum amount of a pollutant that a waterbody can receive per day and still meet water quality standards.

12. *Unique Water* designates a surface water classified as an outstanding state resource water under Arizona Administrative Code R18-11-112.

Contacts

Name	Specialty	Phone Number
ADOT Drainage Section	Reviews drainage reports, connections to ADOT conveyance system	602.712.8609
ADOT Central Maintenance	Phoenix-Tucson MS4, Emergency Response	602.712.7410
ADOT Physical Plant Facilities	Work within ADOT facility boundaries	
Northern Region		928.779.7541
Central Region		602.712.8197
Southern Region		520.838.2851
ADOT Roadside Development Section	Erosion and Pollution Control Requirements, Best Management Practices guidance	602.712.7357
ADOT Traffic Operations Center	Emergency Response	602.712.6591
ADOT District Offices	Encroachment Permits	
Valley Transportation (Phoenix Metro area)		602.712.7522
Tucson District		520.620.5411
Flagstaff District		928.774.1491
Globe District		928.402.5608
Holbrook District		928.402.5600
Kingman District		928.681.6019
Prescott District		928.777.5877
Safford District		520.428.5470
Yuma District		928.317.2106

References

- ADEQ. *Arizona Pollutant Discharge Elimination System General Permit for Discharge From Construction Activities to Waters of the United States*. February 28, 2003. Available on line at: <http://www.azdeq.gov/envIRON/water/permits/stormwater.html>.
- ADEQ. *Arizona Pollutant Discharge Elimination System General Permit for Wastewater Discharges That Pose a Limited or An Insignificant (De Minimis) Threat to Water Quality*, March 17, 2004. Available on line at: <http://www.azdeq.gov/envIRON/water/permits/gen.html#demi>
- ADOT. *Erosion and Pollution Control Manual*, Report No. 31-078. June 1995, Revised February 2005. Available on line at: http://www.azdot.gov/adot_and/storm_water/Erosion_Pollution_Control_Manual.asp
- ADOT. *Highway Drainage Design Manual-Hydraulics*, Draft 2005. Available on line at: www.azdot.gov.
- ADOT. *Highway Drainage Design Manual-Hydrology*, Report No. 35-234, March 1993, Revised August 1994. Available from ADOT Engineering Records.
- ADOT. *ADOT Maintenance and Facilities Best Management Practices Manual*, Draft 2005. Available on line at: www.azdot.gov.
- ADOT. *Roadway Design Guidelines*, Report No. 31-089, May 1996, Revised 2004. Available on line at: www.azdot.gov.
- US EPA. *Final National Pollutant Discharge Elimination System General Permit for Storm Water Discharges From Construction Activities*, 68 Fed. Reg. 39087, July 1, 2003. Available on line at: <http://cfpub.epa.gov/npdes/stormwater/cgp.cfm>.
- EPA. *Final National Pollutant Discharge Elimination System Storm Water Multi-Sector General Permit for Industrial Activities*, 60 Fed. Reg. 59804, September 29, 1995. Available on line at: <http://cfpub.epa.gov/npdes/stormwater/msgp.cfm>.
- US EPA. *National Pollutant Discharge Elimination System (NPDES) Storm Water Program: Questions and Answers*. January 21, 2004. Available on line at: <http://cfpub.epa.gov/npdes/stormwater/msgp.cfm>.

Appendix A: ADOT Drainage Report

DRAINAGE REQUIREMENTS FOR PERMITS

When submitting permit applications for evaluation of drainage impacts within ADOT right-of-way, the following information must be furnished:

- 1) A drainage report that includes a description of the existing drainage conditions, the proposed revisions, and the effects of the proposed changes on existing conditions within ADOT right-of-way.
- 2) Engineering drawings and construction plans showing proposed drainage modifications, including site plans, drainage areas, contours, grading, pipe profiles, channel profiles, etc.
- 3) Hydrologic and hydraulic calculations for design, discharge, water surface profiles, flow depths and flow velocities as applicable. Describe the hydrologic methodology and retention requirements utilized in the design. Show that first flush volume is either retained on the project site or treated prior to discharging to ADOT drainage facilities.

The attached checklist should be used prior to submitting permit applications to ADOT for review.



Roadway Drainage Section

Permit Checklist

Permit Name: _____

Route _____ Milepost or Crossroad _____

Location: City _____

1. Are existing drainage conditions adequately described? ☐
2. Are proposed drainage conditions adequately described, including impacts to ADOT drainage facilities? ☐
3. Are all drainage-related construction plans and details provided? ☐
4. Is a site map included? ☐
5. Are drainage area maps included, clearly showing drainage patterns in both the pre- and post-construction conditions (including discharges to ADOT right-of-way from the project property)? ☐
6. Are there any FEMA floodplain impacts? Is this discussed in the report? ☐
7. Are there any flood control projects existing or planned for the project area? Are there any existing drainage studies for the area? ☐
8. Was the proposed drainage design evaluated relative to scour, ponding, flow diversions, bank protection, etc. within ADOT right-of-way? ☐
9. Are all hydraulic and hydrologic computations included? ☐
10. Is the hydrologic methodology described? ☐
11. Are retention requirements described? ☐
12. Does the report demonstrate that drainage conditions within ADOT right-of-way are not being worsened as a result of the project (including pavement drainage criteria in Tables 603.2B and 603.2C of the ADOT Roadway Design Guidelines)? ☐
13. Is the first flush volume retained on the project site or treated prior to discharging to ADOT drainage facilities? ☐